Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DANNY F. AMMAR, RANDALL C. SPIRES
and STEVEN R. SWEET

Appeal No. 2001-2374
Application No. 08/929,820

ON BRIEF

Before ABRAMS, McQUADE, and NASE, Administrative Patent Judges.

ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 15, 16, 18-22, 26 and 28-36.[1]

BACKGROUND

The appellants' invention relates to a guidance device for aircraft (claims 15, 16 and 18-22), to a method for aircraft navigation (claims 26 and 28-34) and to a method for scheduling an aircraft weather radar scan (claims 35 and 36). An understanding of the invention can be derived from a reading of exemplary claims 15, 16, and 35, which appears in the appendix to the Brief.

The Applied Prior Art

Young	3,896,432	Jul. 22, 1975
Yoder	5,111,400	May 5, 1992
Nicosia et al. (Nicosia)	5,654,890	Aug. 5, 1997 (filed May 31, 1994)
Richman et al. (Richman)	5,675,661	Oct. 7, 1997 (filed Oct. 12, 1995)
Tran	5,892,462	Apr. 6, 1999 (filed June 20, 1997)
Frederick	5,920,276	Jul. 6, 1999 (filed June 10, 1998)
PCT Application (PCT)[2]	WO 95/33213	Dec. 7, 1995

The Standing Rejections

Claims 35 and 36 under 35 U.S.C. § 101 as being directed to an invention that lacks patentable utility.

Claims 15, 16, 18, 19, 21, 22, 26 and 28-34 under 35 U.S.C. § 102(e) as being anticipated by Richman.

Claims 35 and 36 under 35 U.S.C. § 102(b) as being anticipated by Yoder.

Claims 35 and 36 under 35 U.S.C. § 102(e) as being anticipated by Frederick.

Claims 15, 16, 18-22, 26 and 28-34 under 35 U.S.C. § 103(a) as being unpatentable over Young in view of Tran.

Claims 15, 16, 18-22, 26 and 28-34 under 35 U.S.C. § 103(a) as being unpatentable over Nicosia in view of Tran.

Claims 15, 16, 18-22, 26 and 28-34 under 35 U.S.C. § 103(a) as being unpatentable over PCT in view of Tran.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the Answer (Paper No. 18) for the examiner's complete reasoning in support of the rejections, and to the Brief (Paper No. 17) and Reply Brief (Paper No. 20) for the appellants' arguments

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

The Rejection Under Section 101

The examiner has rejected claims 35 and 36 under Section 101 on the basis that "the claimed invention lacks patentable utility" because it merely collects data "without any practical application" (Answer, page 4). We do not agree. Claims 35 and 36 are directed to a method for scheduling an aircraft radar scan to collect both weather and terrain data using a single radar. They set forth a method by which an existing apparatus can be used to collect several types of data by means of a single radar, and it is our view that the methods set forth in the claims clearly have utility.

This rejection is not sustained.

The Rejections Under Section 102

The guidance provided by our reviewing court with regard to the matter of anticipation is as follows: Anticipation is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and

require either the inventive concept of the claimed subject matter or recognition of inherent properties that may be possessed by the reference. See Verdegaal Brothers Inc. v. Union Oil Co. of California, 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir. 1987). Nor does it require that the reference teach what the applicant is claiming, but only that the claim on appeal "read on" something disclosed in the reference, *i.e.*, all limitations of the claim are found in the reference. See Kalman v. Kimberly-Clark Corp, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1026 (1984).

The Rejection On The Basis Of Richman

The first of the Section 102 rejections is that claims 15, 16, 18, 19, 21, 22, 26 and 28-34 are anticipated by Richman. The appellants dispute this conclusion with regard to claim 15 by asserting that Richman fails to disclose or teach the required "means, coupled to . . . said airport features data base, for identifying a given airport and for comparing said terrain radar image . . . " (Brief, page 8). The examiner did not respond to this argument, and our evaluation of the reference causes us to agree with the appellants on this point. We therefore will not sustain this rejection of independent claim 15 and dependent claims 16, 18, 19, 21 and 22.

is fixed to the terrain, and because it does not disclose or suggest comparing the terrain radar image to the image data from a stored image data base (Brief, page 7). These arguments are not persuasive. The claims do not require that the radar device be located in the aircraft, so the former argument is based upon a limitation not present in the claim. With regard to the latter, we first point out that the appellants have not asserted with regard to this rejection that the terms "terrain" and "obstacle" have any special meaning, and therefore we shall apply the common applicable definitions. The common definition of "terrain" being "the physical features of a tract of land,"[3] and "obstacles"[4] being "something that stands in the way," it therefore is our opinion that one of ordinary skill in the art would appreciate that Richman's viewing of the "terrain" would include sensing the presence of "obstacles" such as other aircraft and vehicles on the runway (column 1, lines 23 and 24; column 2, lines 18-21). This being the case, contrary to the appellants' argument, the Richman system does compare received "terrain" information to image data from a stored base and provides navigation information based on the comparison (column 2, lines 4-24).

We therefore will sustain the rejection of independent claim 26 as being anticipated by Richman, as well as the like rejection of dependent claims 28-34, which

The Rejection On The Basis Of Yoder

Claims 35 and 36 stand rejected as being anticipated by Yoder. Both of these independent claims are directed to a method for scheduling aircraft weather radar scan by collecting weather data, windshear data and terrain data in a particular sequence[s]. Even if the Yoder system were capable of operating in the manner required by claims 35 and 36, the examiner has not pointed out where this reference discloses or teaches the specific steps recited in these claims, and we have not found such on our own.

This rejection is not sustained.

The Rejection On The Basis Of Frederick

This rejection also applies to claims 35 and 36. Frederick gathers terrain and weather information by the use of aircraft-borne radar devices and presents it to the pilot. As was the case with Yoder, the examiner has not pointed out where the specific steps recited in claims 35 and 36 are disclosed or taught. We note that while the reference states that “the pilot could toggle between the ground and weather returns quickly and easily” (column 10, lines 5-7), there is no explicit teaching that the radar be operated in the manner required by these two claims.

This rejection is not sustained.

USPQ 785, 788 (Fed. Cir. 1984). The question under 35 U.S.C. §103 is not merely what the references expressly teach but what they would have suggested to one of ordinary skill in the art at the time the invention was made. See Merck & Co. v. Biotech Labs., Inc. 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). While there must be some suggestion or motivation for one of ordinary skill in the art to combine the teachings of references, it is not necessary that such be found within the four corners of the references themselves; a conclusion of obviousness may be made from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference. See In re Bozak, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969). Further, in an obviousness assessment, skill is presumed on the part of the artisan, rather than the lack thereof. In re Sovish, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985). Insofar as the references themselves are concerned, we are bound to consider the disclosure of each for what it fairly teaches one of ordinary skill in the art, including not only the specific teachings, but also the inferences which one of ordinary skill in the art would reasonably have been expected to draw therefrom. See In re Boe, 355 F.2d 961, 965, 148 USPQ

Claims 15, 16, 18-22, 26 and 28-34 stand rejected as being unpatentable over Young in view of Tran. We initially point out that the appellants have elected to group all of these claims together (Brief, page 4), and therefore we need evaluate only the rejection of a representative claim, which we have selected to be claim 26.[5]

Young is directed to a radar airport recognition and landing guidance system. It is the examiner's view that Young discloses all of the subject matter recited in claim 26 except for the step of detecting a collision hazard to the aircraft, but that it would have been obvious to one of ordinary skill in the art to add this to the Young system in view of the teachings of Tran, which discloses a ground collision avoidance system. The appellants have not raised objection to combining the teachings of Young and Tran. The only arguments they have set forth with regard to this rejection (Brief, page 10) are that the references do not disclose the use of "weather" radar to detect obstacles on the ground, and that "obstacles" should be defined as "hazards in addition to terrain, e.g. aircraft incursions onto the approach runway, temporary structures erected in the flight path, etc," referring to page 4, line 22 and page 11, lines 1 and 2 of their specification for support.

We first point out that claim 26 does not require that "weather" radar be used to

should not be sustained.[6] In addition, the "hazards in addition to terrain, e.g. . . . temporary structures erected in the flight path" mentioned by the appellants in our view specifically encompasses the "newly-erected structures on the ground" which are among the objects named by Tran as being detected by the disclosed collision avoidance system (column 2, line 44). This being the case, the appellants' second argument also is not persuasive. Additionally, it appears to us that the noted portions of the specification provide support for the definition of "terrain" which we have adopted, rather than the one the appellants would have us adopt.

It is our conclusion that the combined teachings of Young and Tran establish a prima facie case of obviousness with regard to the subject matter recited in representative claim 26, and therefore we will sustain the rejection of claim 26 and claims 15, 16, 18-22 and 28-34, which have been grouped therewith.

The Rejection On The Basis Of Nicosia And Tran

This rejection also applies to claims 15, 16, 18-22, and 26-34. It is the examiner's position that Nicosia discloses all of the subject matter recited in the claims except for the ground collision detection system, which is taught by Tran. The examiner opines that it would have been obvious to one of ordinary skill in the art to modify the

this rejection should not be sustained because Tran fails to disclose or suggest the deficiencies in the Nicosia system in that it does not use "an aircraft weather radar to obtain obstacle or collision hazard information as claimed, and would thus not provide air safety against temporary or un-mapped collision hazards in the aircraft flight path" (Brief, page 11). No objection is raised to combining the teachings of the two references.

We shall select claim 26 as the representative claim. With regard to the appellants' arguments, we again point out that claim 26 does not require that an "aircraft weather radar" be used in the method therein set forth, so that argument is not persuasive on its face. Moreover, Tran clearly teaches that "un-mapped collision hazards" are detected (column 2, lines 43 and 44).

This rejection is sustained.

The Rejection Based On PCT And Tran

Claims 15, 16, 18-22, 26 and 28-34 are included in this rejection. PCT is based upon the Nicosia application that was combined with Tran in the preceding rejection, and thus sets forth the same teachings. The examiner has followed the same reasoning in combining the references, and the appellants' arguments also are the

CONCLUSION

The rejection of claims 35 and 36 under 35 U.S.C. § 101 is not sustained.

The rejection of claims 15, 16, 18, 19, 21 and 22 under 35 U.S.C. § 102(e) as being anticipated by Richman is not sustained.

The rejection of claims 26 and 28-34 under 35 U.S.C. § 102(e) as being anticipated by Richman is sustained.

The rejection of claims 35 and 36 under 35 U.S.C. § 102(b) as being anticipated by Yoder is not sustained.

The rejection of claims 35 and 36 under 35 U.S.C. § 102(e) as being anticipated by Frederick is not sustained.

The rejection of claims 15, 16, 18-22, 26 and 28-34 under 35 U.S.C. § 103(a) as being unpatentable over Young in view of Tran is sustained.

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The rejection of claims 15, 16, 18-22, 26 and 28-34 under 35 U.S.C. § 103(a) as being unpatentable over PCT in view of Tran is sustained.

The decision of the examiner is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

NEAL E. ABRAMS Administrative Patent Judge	)
JOHN P. McQUADE Administrative Patent Judge	) BOARD OF PATENT) APPEALS) AND) INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)

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